

REMARKS

The Office Action mailed September 27, 2004 has been carefully considered along with the references cited therein. In the subject Office Action, the Examiner rejected claims 1-6, 9, 11-16 and 18-24 under § 103(a) as being unpatentable over U.S. Patent No. 4,950,958 ("Lin '958") in view of U.S. Patent No. 5,032,960 ("Katoh"). The Examiner also rejected claims 7-8 and 25-26 under § 103(a) as being unpatentable over Lin '958 and Katoh as applied above, and further in view of U.S. Patent No. 5,672,000 ("Lin '000"). The Examiner also rejected claim 10 under § 103(a) as being unpatentable over Lin '958 and Katoh as applied to claim 1 above, and further in view of U.S. Patent No. 6,559,879 ("Kobayashi").

In this amendment, claims 1, 4, 5, 7 and 8 have been cancelled. Claims 2, 3 and 9 have been amended to depend from claim 27. Furthermore, claims 11 and 23 have been amended. Claims 27-29 have been added.

With respect to the claim rejections that apply the combination of Lin '958 and Katoh, Applicants respectfully assert that the combination by the Examiner was improper. The light source for an optical image reader disclosed in Katoh is not in Applicant's field of endeavor, which is linear border lighting, typically used to simulate neon lighting. Furthermore, Katoh is not reasonably pertinent to the particular problem with which Applicant was concerned. Katoh endeavored to overcome the problems with using a convergent lens with LEDs. Applicant, on the other hand, solved problems of known LED border tube systems, which is a totally unrelated endeavor. Accordingly, Katoh is nonanalogous art for the purposes of all obviousness rejections, and therefore, all obviousness rejections that include Katoh should be removed since they are improper. Nevertheless, Applicant has provided further arguments in favor of patentability for certain claims.

Claim 27 is similar to original claim 7 in that it recites an electrical cable, a mount, a light emitting device, and a sheath. Claim 27 recites that "the mount has a complementary shape to the hollow region of the sheath so that the LED is arranged to face the cylindrical lens and is inhibited from moving around an axis parallel to the cylindrical lens." Support for this limitation can be found in the figures. For example, FIGURE 3 discloses the sheath 16 and the hollow region (not numbered) and FIGURE

4 shows a mount 22. The mount in cross-section is generally rectangular having a slightly wider base, which can be referred to as tabs as recited in claims 28 and 29. Likewise, the hollow region of the sheath is also generally rectangular while also having the lower channels that receive the tabs. Such a configuration inhibits rotation of the mount inside the sheath in an axis that is parallel to the optical element 18 (such an axis would be running normal to the sheet upon which the figure is drawn).

In rejecting claim 7, the Examiner relied on Lin '000 as disclosing a mount for an LED; however, Lin '000 provides no motivation for a mount that has a complementary shape to the hollow region of the sheath so that the LED is arranged to face the cylindrical lens and is inhibited from moving around an axis parallel to the cylindrical lens. Instead, Lin '000 discloses a mount including an F-shaped fixing piece 33 used as a lug for fixing or locking during the installation of the decorative lamp. The F-shaped fixing piece is shaped to receive a fastener and therefore provides no motivation to work in a complementary manner with a sheath. Katoh does not teach a mount that has a complementary shape to the hollow region of the sheath. Accordingly, the references cannot be combined in a proper manner such that claim 27 would read on the references. Accordingly, it is submitted that claim 27 patentably defines over the references cited.

Claim 3 has been amended, not only to depend from claim 27, but also to further recite that the extruded length of wave guiding material is "for distributing light along the length of the sheet." The decorative lamp strip disclosed in Lin '958 or the bendable lamp in Lin '000 cannot be properly combined with light source for an optical image reader in Katoh to provide a combination that would anticipate claim 3. The lens disclosed in Katoh is a convergent lens, which by definition causes rays of light to converge. This lens in Katoh is in contrast to Applicant's claimed lens which is to distribute light. Furthermore, Katoh provides no motivation to provide a lens that distributes light because Katoh is directed toward a light source for use in an optical image reader. In an optical image reader it is desirable to focus the light toward the document being read. This is in contrast to Applicant's border lighting strip, which is a light source similar to a neon tube where it is desirable to distribute the light. Accordingly, claim 3 further defines over the cited reference.

Claim 11 defines over any proper combination of Lin '958 in view of Katoh '960. Claim 11 recites, among other things, "wherein the tube and the lens are integrally formed by a single extrusion." The Examiner argues that Katoh teaches an integrally formed cylindrical lens, but Katoh fails to disclose where the tube and the lens are integrally formed by a single extrusion. Instead, Katoh teaches a continuous two-color extrusion molding process. In Katoh's two-color extrusion molding process a transparent resin 42, which is a material of the convergent lens 34, and a white resin 41, which is a material of the reflection casing 35, are molded in the form of individual cross-sections and extruded as they are connected together (see Col. 5, lines 51-56). Accordingly, Katoh does not disclose a single extrusion, but instead discloses a double extrusion where two extruded pieces are connected together. Furthermore, it would not be obvious to modify Katoh such that the sheath is formed in a single extrusion because the reflective casing 35 forms an important part of the invention in Katoh as does the convergent lens. Providing a single extrusion of transparent resin in Katoh would fail to include the reflection casing and providing a single extrusion of white resin would fail to include a lens. Therefore, it is submitted that claim 11 and those depending from it patentably define over the cited references.

Claim 16, which was also rejected over Lin '958 in view of Katoh, recites, among other things, "the light transmissive tube including an integral optical element that distributes light emitted by the plurality of light emitting elements along the lighting strip." As mentioned above, Katoh discloses a convergent lens as opposed to a lens that distributes light. Accordingly, claim 16 defines over the cited references.

Claim 23, which was also rejected over Lin '958 in view of Katoh, recites, among other things, "extruding a transparent or translucent sheath including an integral optical element, the sheath adapted to receive the linear light source." As mentioned above, Katoh fails to disclose a transparent sheath. Instead, Katoh discloses a sheath made of white resin. Furthermore, Katoh fails to disclose extruding a transparent sheath including an integral optical element. Instead, Katoh teaches extruding a white sheath and connecting a convergent lens to the white sheath. Accordingly, it is submitted that claim 23 and those that depend from it patentably define over the cited references.


In view of the above, it is submitted that the pending claims patentably distinguish over the cited references. All formal and informal matters having been considered, Applicant respectfully requests and early indication of allowance of the application.

Respectfully submitted,

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